Title: SPINOCEREBELLAR ATAXIA TYPE 8 AND METHODS OF DETECTION Applicant(s): RANUM et al.

Serial No.: 09/181,585 Fileu: October 28, 1998 Docket: 110.00

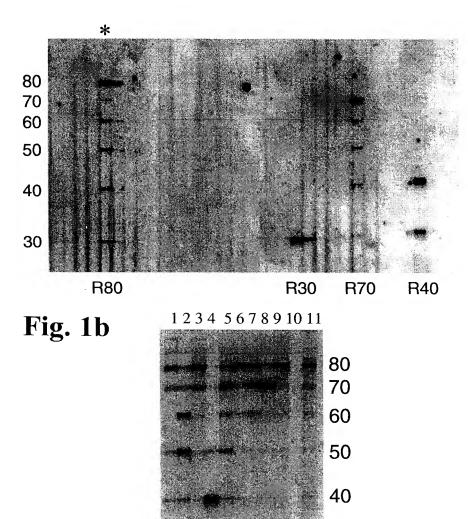
Express Mail No.: EL 8882744

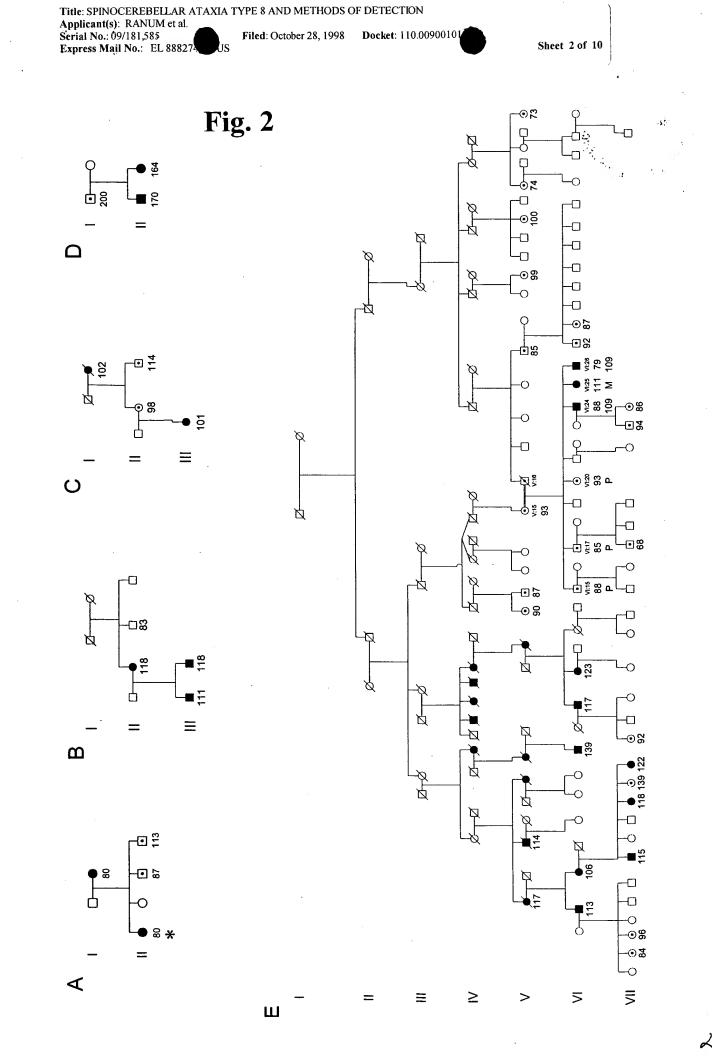
Filea: October 28, 1998 Docket: 110.00900101

Sheet 1 of 10

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Fig. 1a



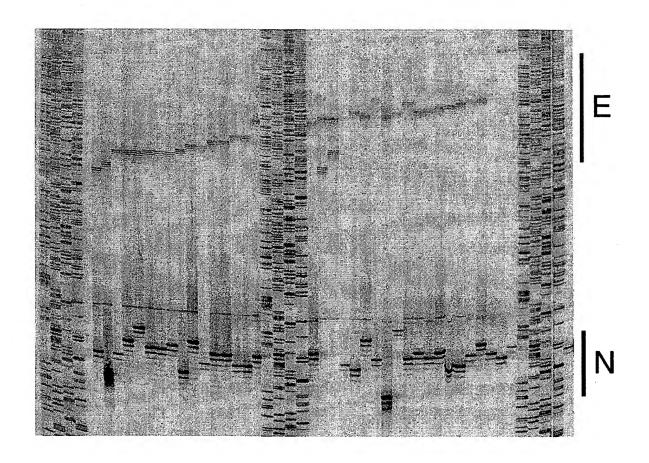


Filed: October 28, 1998 **Docket**: 110.0090010

Title: SPINOCEREBEILAR ATAXIA TYPE 8 AND METHODS OF DETECTION Applicant(s): RANUM et al. Serial No.: 09/181,585. Filed: October 28, 1998 Docket: 110.00 Express Mail No.: EL 888274 US

Sheet 3 of 10

Fig. 3a



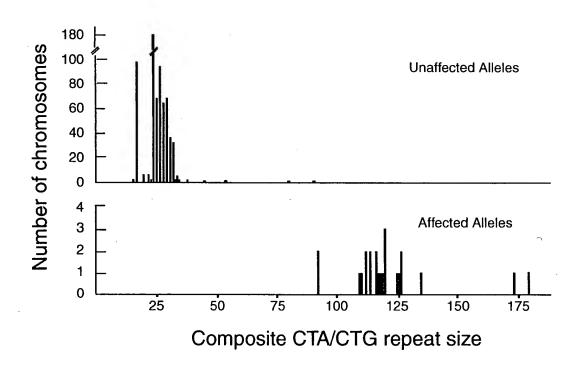
Applicant(s): RANUM et al. Serial No.: 09/181,585 Express Mail No.: EL 8882744

Filed: October 28, 1998

Docket: 110.0090010

Sheet 4 of 10

Fig. 3b

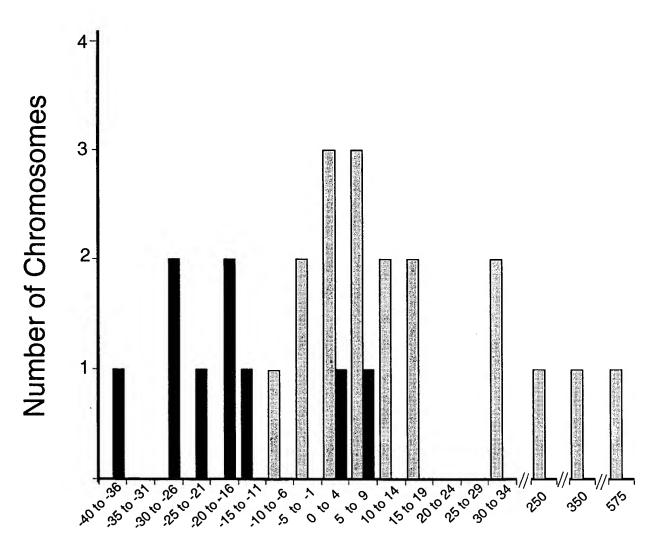


Applicant(s): RANUM et al.

Filed: October 28, 1998 Docket: 110.0090010

Serial No.: 09/181,585 Express Mail No.: EL 888274 Sheet 5 of 10

Fig. 4



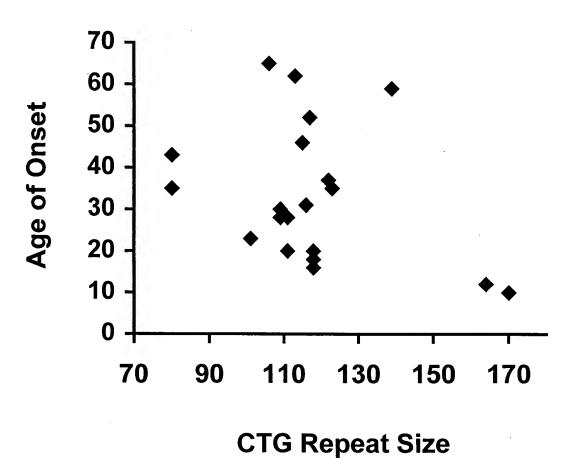
Change in CTG repeat length

Applicant(s): RANUM et al Serial No.: 09/181,585 Express Mail No.: EL 888

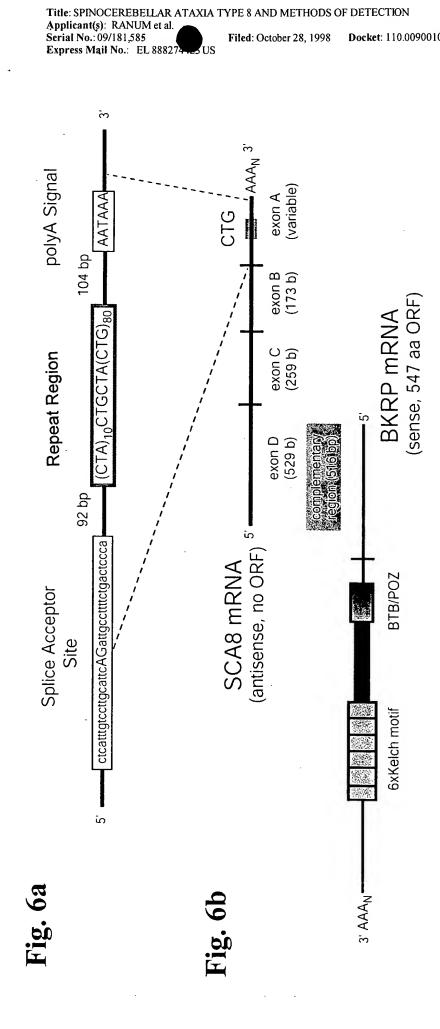
Filed: October 28, 1998 Docket: 110.00900

Sheet 6 of 10

Fig. 5



Docket: 110.0090010



Sheet 7 of 10

Title: SPINOCEREBELLAR ATAXIA TYPE 8 AND METHODS OF DETECTION

4423 US

Applicant(s): RANUM et Serial No.: 09/181,585 Express Mail No.: EL 88

Filed: October 28, 1998

Docket: 110.009

Sheet 8 of 10

Fig. 7a

GAATTCATGCCTATAATTTATAAGATCTGCCACCCTACCAGCCTTACTGTTTTTCTCATT GGTAATATTCATGAAGTCACTGGTAATTTTACATTTTAAAATATGCAGTATGAATTGCAT ATATAGTACTTCTTAAATGTCAACACATTTATCTTAAATCATTTATCGAAGTATGAGAAG TACCTATCATATTTTGGTAAATAATACCTTTAGGTTTTTCCTAGTTCTTGGCTCCAGACT AACCATCTTGACCTGTCATTCTAGTTTTTACTTCTGAGACATTCTATAGTCTGTGTCTGA TATTCTCTACTATTTCCTCATTTGTCCTTGCATTCAGATTGCCTTTTCTGACTCCCAGCT TCCACGGAGAGATTAACTCTGTTGGCTGAAGCCCTATCCCAATTCCTTGGCTAGACCCTG GGTCCTTCATGTTAGAAAACCTGGCTTTACTACTACTACTACTACTACTACTACTACTAC TGCTGCATTTTTTAAAAATATATTATCTTATTTTACTATTTGATGTTATAATTGTTATAT ATTTTTCCATACTTCCTCATACTGCTTATCTCTTACTTAAGAATTTATGAATAAAGAATT CATTCTCAGTCCTCACAAGCCTTTCTCAAACACAATGTTTATCAAAGAAAATTGTAGCAA CCAATATACTTAGTGGAATTTCTCACAGAGTTTGAGTGTAGGAAACAGTATTCACTGTAT TTTATTTTCCTTTATAAAAGTACCTTCTTGCTTCACTGACATTTCTATACAACTATTCTT GTAAGCAAGGAATGAATTC

Applicant(s): RANUM et al.

Serial No.: 09/181,585 Express Mail No.: EL 888274

Filed: October 28, 1998 Docket: 110.0090010

Sheet 9 of 10

Fig. 7b

ATCCTTCACCTGTTGCCTGGCTAGAGTTGTCTGGCTCCACTTTGAGCTCTTGCAGAACCA GCCCTTTTTCGTGTGGTCCAGGAAAGTCCATGCCTGGCACCACCTCCTCCTAGTGACT CCACGTAGAAGAGAGTCCTGGCTGGCTGAGTGCCCTGCCCAGGAGCCCCTTGCTGCA ACGGGGAGGACGATGAAGAGGAAGAGGAAGGCTTCTTCCAGAAAGTGCTCACACCGC TTCTCTCTTGGCTTTTGAGCAGGCGACTCTGGCTGGGTCCCCAGTGCTCAAAGCTGCCAC TGCCGTCCTGTTGCAGGCAGCCTCCCCCCCCGCCGGGCCGCCGGTGGAAGGAGACGGGTGGC TGAAGAGTTTCCAGCGGAGTCGCAGAATGTGCTTCACATCGAAGTCTTTTCGCCCAGAGC ${\tt CTGACATGCTTTACGCACAGAAGGCAAAAGGCTGGCAGCTCACGCAGGGTTCTGGAGGCT}$ GGGAAGTTCAAGACCAATGCACGAGAATTTGGTCTAAAGAGAATCTTCTTGCTCTGAACA CACATAGTAGAAGGCAGAAGGGCAAGAGAGAGAACAAAGTCTGTGTCTCCACATGGCAGA AGAGCAGAGGAGACCTACTCCTCTATGGCAACCACCCCATCAATGACAAAAATCC GGAACAAGATTCAAACTTCAGAGAGAGAGGGAAGAAAAACATTTAAATATATCTGGCATA ATCCXAGACTATTTACGACAAGTGTTCTGTGTTTCTAATAATAAAACAGACTTCACCTCG GAGTACCTGCAGAACTGGGACCCCAATGACCAGGGAGAATGAAGAACAACTTGTTTGAAG ATTGCCTTTTCTGACTCCCAGCTTCCACGGAGAGATTAACTCTGTTGGCTGAAGCCCTAT ACTACTACTACTACTACTACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT GCTGCTGCTGCTGCTGCTGCTGCATTTTTTAAAAATATATTATCTTATTTTACT ATTTGATGTTATAATTGTTATATATTTTTCCATACTTCCTCATACTGCTTATCTCTTACT TAAGAATTTATGAATAAAGAATTGATTTTTCA

Fig. 7c

AAGCGTACCCCTCGCCAGATCTCTTGGTGCACCTGCGCCCCTGTCCCTGGCCTTTTCGAG GATGCCCGATAGCCTGCCGGGTGGCTCTGAGAAAGTCAATTGCTTTCTGCAATGCCAGA AGAGGTGGTTTTATATAGTCAGTTTGTAAAAGAGAAAAATAGATATTCTAGCGCATATAG GGAGGCAAAAGAAAAAGCCCGCCTGTGAAGCTGTCAAGGTCCTCACAGTACAATTTTCTC TCTGCCTCAGCGCCTCCTCCCCCTTTCTGGAGGCTGGGAAGTTCAAGACCAATGCACG AGAATTTGGTCTAAAGAGAATCTTCTTGCTCTGAACACACATAGTAGAAGGCAGAAGGGC AAGAGAGAGAACAAAGTCTGTGTCTCCACATGGCAGAAGAGCAGAGGAGACAGAACCTAC TTGAAGTGTTGAGAAGAGAATGGCTCAGAGTCAAGCGGGAACAAGATTGCCTTTTCTGAC TCCCAGCTTCCACGGAGAGATTAACTCTGTTGGCTGAAGCCCTATCCCAATTCCTTGGCT AGACCCTGGGTCCTTCATGTTAGAAAACCTGGCTTTACTACTACTACTACTACTACTACTACT GCTGCTGCTGCATTTTTTAAAAATATATTATCTTATTTTACTATTTGATGTTATAAA AAAGAATTGATTTTCA

Applicant(s): RANUM et al. Serial No.: 09/181,585 Express Mail No.: EL 888

Filed: October 28, 1998 Docket: 110.00900

Sheet 10 of 10

Fig. 7d

AGTGG	ACACAGATGG	CTTCCTTGAA	TATTGGGAGA	GCAGGTGCCT
TCACC	TGTGTCTACC	GAAGGAACTT	ATAACCCTCT	CGTCCACGGA
GTGTGGTAGT	CATCAAGCAA	CCTTGACTTA	TTGATATTTT	ACTTGGAAAG
CACACCATCA	GTAGTTCGTT	GGAACTGAAT	AACTATAAAA	TGAACCTTTC
	CTGGAGTGGT			
TAAAATGAAC	GACCTCACCA	ATAAAAATAT	AACTTACCGT	TCTTACTCTT
CTTCCAGAGA	TGAAAACTCT	TCAAGAACAA	GGATCTCTGT	AGCGTTACCT
GAAGGTCTCT	ACTTTTGAGA	AGTTCTTGTT	CCTAGAGACA	TCGCAATGGA
ACTGATGTTG	AAAGAGTTAG	TAGATCAAAC	AGAATAGTAG	GAAACAAGAA
TGACTACAAC	TTTCTCAATC	ATCTAGTTTG	TCTTATCATC	CTTTGTTCTT
AACATTAAAC	TTATACAGGA	AAAATGTCTG	GCCATATGTT	AGTTAGTTCG
TTGTAATTTG	AATATGTCCT	TTTTACAGAC	CGGTATACAA	TCAATCAAGC
GGAATGGTTA	TTGGTAATTT	GTTTTGTATT	ATAGCATACA	ATAACTAGAG
CCTTACCAAT	AACCATTAAA	CAAAACATAA	TATCGTATGT	TATTGATCTC
TTACCAAAGG	CTTGTTTTTT	CTTGAGCAGT	TGAAAGGAGA	GACCAATATT
AATGGTTTCC	GAACAAAAA	GAACTCGTCA	ACTTTCCTCT	CTGGTTATAA
TGTGACATGG	ATAGTTTCAT	GACCACAACT	CATTCAATCA	TTTTATAGTC
ACACTGTACC	TATCAAAGTA	CTGGTGTTGA	GTAAGTTAGT	AAAATATCAG
TATGGCAATA	TCCAAGAGAT	TGCCAAGAGT	AGAAGACAGA	ATATTTCATC
ATACCGTTAT	AGGTTCTCTA	ACGGTTCTCA	TCTTCTGTCT	TATAAAGTAG
TGACAGTATC	TGATTGGTTT	ACTGTTTTTC	TAATCATATG	TGGTCATAAC
ACTGTCATAG	ACTAACCAAA	TGACAAAAAG	ATTAGTATAC	ACCAGTATTG
GGGAAGCAGA	ATTATGCTTT	ATTCAAACAA	ACCTGCTTCT	GCCTCATTTT
CCCTTCGTCT	TAATACGAAA	TAAGTTTGTT	TGGACGAAGA	CGGAGTAAAA
CCTAAGCTAT	GAGAACAATT	AGAGAAACAG	ATTCATGCTT	GTATCTTGCA
GGATTCGATA	CTCTTGTTAA	TCTCTTTGTC	TAAGTACGAA	CATAGAACGT
TTCAGAAAAC	AAACTGTCCT	ACTAATCAAA	GCTGCAT	
AAGTCTTTTG	TTTGACAGGA	TGATTAGTTT	CGACGTA	